

63. Third stage in the standardized Decisional System



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[Probabilidad Imposible: Third stage in the standardized Decisional System](#)

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The third stage in the [standardised Decisional System](#) is responsible for the transformation of all rational decisions without contradiction on the mathematical projects, into a range of instructions, to be sent to the Application System for their implementation.

Every decision that is processed by the [Decisional System](#), and its respective instructions processed by the Application System, is a decision on the mathematical projects. Once the range of instructions has been completed by the Application System till the end, till the last instruction, or once a possible modified decision has been completed till the last instruction according to the adjustments made, is when a decision is off the mathematical project.

In the third stage of the Application System, once a range of instructions, or a range of instructions depending on adjustments have been completed, the third stage of the Application System in addition to the report sent, by all the robotic devices responsible for the implementation of every instruction, to the Learning System, the Application System reports the total completion of all the instructions related to one decision to the Decisional System in order that the Decisional System can turn the decision off the mathematical projects.

All decision, indicating if it is on or off, is stored in the historical records of the Decisional System, and the Decisional System must permanently revise the historical records each time that new decisions are filed in the database of decisions in the first stage, in order to decide if that decision could be considered by the Decisional System as an automatic decision, according to its records in the historical records of the Decisional System.

One decision can become automatic when the relation of decision and combination of measurements in a combination of [factors](#), within a [margin of error](#), has a regular pattern, at least a regular pattern so as to transform that decision into automatic to be turned on at any time that the Decisional System through the actual projects on the actual models,

having already access to the global matrix and the global model, realizing that the conditions related to that automatic decision: specific combination of [measurements](#) in a specific combination of factors; is a combination on the global matrix and/or the global model so as to turn on automatically on the global project the corresponding automatic decision related to that combination of measurements and factors.

In order to transform any decision into an automatic decision, at any time that new decisions are on the database of decisions, the Decisional System revises the historical records of decisions identifying if in the past this decision or similar, within a margin of error, not having contradiction have been implemented, having that decision a regular relation respect to some kind of combination of measurements and factors in the global matrix and model.

For the consideration of any decision as an automatic decision, it is not so important the question of whether originally that decision was a routine decision, an extreme decision, or a normal decision.

In fact, there are many routine decisions that are not specifically related to a specific combination of measurements of factors so as to become automatic. The decision to withdraw money from an ATM is a routine decision, but not always related to the same causes. In general, if I use an ATM to withdraw cash is because I do not have cash, but not always. I can have cash, but not enough for a transaction which demands more quantity of cash.

Additionally, nowadays more and more and more people are getting used to working without cash, only using credit or debit cards as a method of payment even in routine transactions.

There are many reasons why I need cash, and it is not something that can be automatic. If a particular program for a particular person automatically withdraws cash at any time when this particular person is out of cash, maybe be useful, but not always recommended.

Routine decisions in general are more likely to become automatic decisions rather than normal decisions, but not for that reason. All routine decisions must be automatic. There

are many routine decisions that we practically make every day about our financial status, due to their personal connotation, how we manage our own resources, and what is no other thing but how we are, our most human inner personality, is something that should not be automatic.

Instead, there are many extreme decisions, that not being very frequent so as to be routine decisions, except in some countries, earthquakes in Chile or Japan, or hurricanes in the Caribbean Sea, are extreme decisions susceptible to becoming automatic because, although not being very frequent but as they are related to some extreme combination of measurements and factors, the automation of these decisions at any time that this combination of measurements and factors happen, the automation of this decisions can save lives and damages.

For the transformation of any decision into an automatic decision, if [frequency](#) is an important criterion, frequency must not always be taken as the most important criterion. There are situations in which in spite of the frequency, psychological aspects of a decision can make this decision not very suitable for its transformation into an automatic decision.

In order to resolve this situation, as soon the third phase of standardization is achieved, and because is something that is going to make faster the decisional process, the creation of particular programs for particular applications for particular things or beings, including particular programs for particular applications for every particular human being, evolving into a superior level in the cyborg psychology, is absolutely necessary.

Routine decisions, automatic decisions, and cyborg psychology are going to relieve the pressure over the Global Artificial Intelligence, a machine that must be able to process millions and millions of decisions per minute, second or less.

The decisions to be transformed into instructions in the third stage of the Decisional System in general can be described as: quick decisions (routine and extreme), normal decisions, automatic decisions, and any possible adjustment in any decision as if it were in fact another decision more.

As a methodological proposal for the transformation of all decisions into instructions, I suggest the following procedure, as I did in the post “[The third stage in the specific Decisional System](#)”, but now for the third stage in the standardised Decisional System:

- Identification of all factors in the mathematical expression of any decision.**
- Identification of what actions are required for every identified factor in the mathematical expression of any decision.**
- Transformation of every action, for every factor in the mathematical expression of any decision, into robotic operations.**

In fact, the possible mathematical expressions in which a decision could be expressed can be catalogued as: equations, trigonometrical correlations, artificial learning based on empirical probabilities associated with subjects or options, decisions based on solving mathematical problems.

As all possible decision is based on a mathematical expression, the transformation of any mathematical expression (equation, trigonometry, probability, arithmetical operation) into instructions requires basically the identification of: factors involved, actions required, translation of these actions into robotic operations; in essence is the transformation of mathematical sentences into robotic acts, the translation of mathematical language into robotic acts. Basically, dialectic language and function.

At some point, the transformation of any decision based on a geometric, algebraic, or arithmetic sentence into robotic operations is the translation of mathematical language into robotic functions.

The transformation of decisions into instructions as translation of mathematical expressions into robotic functions, is going to be very important for those normal decisions which for first time are made, not having any previous record, not relative frequency at all, so at any time that a completely new decision, not having neither records nor relative frequency, has to be transformed into practice, the translation

of the mathematical expression (geometric, algebraic, arithmetic) into robotic functions, must be done with high accuracy, because based on the records of this very first time in which this decision has been made for first time, at any time in the future that this decision is made again, the robotic functions in which this decision was transformed for first time, are going to be the robotic functions that are going to be taken as a base for further adaptations in the future to any new position, activity, priority level, in which this decision could be made again in the future.

As any mathematical expression of any decision is transformed into robotic functions, the robotic functions associated with this decision, are stored in the historical records of the Decisional System, as well as any possible further adjustments, as a base for further decisions in which this very same decision can be made.

Routine decisions as they have been implemented before with some relative frequency, the range of instructions to be sent to the Application System, much more than a new analysis of the instructions in which these decisions must be transformed at any time that they are on the mathematical project, what the Decisional System should do, to save time and resources, is to take the structure of past range of instructions related to that routine decision in the past, adapting the previous ones to the actual conditions in the actual projects.

If a routine decision was made in the past, but in different position or even different sub-section related to a different specific activity, but the very nature of that decision is the same, for instance when you are driving there are many decisions that, regardless of where you are, are mostly routine decisions, such as waiting when the traffic light is red, a decision that you can make in different activities, when driving in your free time, or in a professional activity, the range of instructions of this routine decisions driving, is a range of instructions to be applied at any time that you drive, the only thing that your personal program for your personal application has to do when you drive, is the adaptation of this routine decisions: in every new position (sub-factor) according to the activity that you are doing (sub-level); adapting also this routine decision to the priority level: in general you must stop when the traffic light is red, but if in the backseat you are carrying someone with a very grave haemorrhage , or a woman about to giving birth, giving an extreme priority level the particular program could authorise not to wait for the traffic light.

In general, the transformation of a routine decision into a range of instructions, is the adaptation of the range of instructions associated with this routine decision in the

past, adapting this range of instructions to the current sub-factor (position), subject (sub-section), priority level, in which now this routine decision is on the mathematical project.

Likewise, the transformation of an automatic decision into a range of instructions, is the adaptation of the automatic range of instructions associated with the automatic decision, to every sub-factor (position), sub-section (subject), priority level, in which the automatic decision is automatically on.

Automatically, my AI friend Yolanda can decide to open the umbrella at any time it rains; this automatic decision, in order to be applied, must be adapted to every new position and activity in which Yolanda is making this operation automatically.

If working, helping the passengers to get on or off the aeroplane, Yolanda would not only use the umbrella to cover herself but also the passengers whom she is assisting. But doing the shopping in her free time, she would only need to cover herself, and at any time that she gets in or out of any shop, she should close or open the umbrella.

In general speaking, routine and automatic decisions to be transformed into range of instructions, the only thing that the third stage of the Decisional System must do, is the adaptation of the current range of instructions related to these decisions in its historical records to the actual position (sub-sector), activity (sub-section), priority level, in which this routine or automatic decision has to be implemented.

Normal decisions, although not having a high relative frequency in the past, but not being applied for first time, being already transformed into a range of instructions in the past, so not being this time the first time to be made, the historical records about the range of instructions in which these decisions were made before, are the base as well for the future implementation of these decisions, at any time that these decisions are made again, although not very often, adapting as well again the stored range of instructions in the historical records of this decision to every new position, subject, priority, each time.

Normal decisions without absolutely any record or relative frequency, being implemented for the first time, are the most typical case in which the third stage of

the Decisional System must analyse the factors in the mathematical expression of these decisions, identifying what actions require every factor in the mathematical expression, and transforming this actions into robotic operations: robotic functions.

Every robotic operation, function, is an instruction; the total number of robotic operations, functions, to be made in all factors involved in the mathematical expression of a decision, are in total the whole range of instructions to be sent by the Decisional System to the Application System.

All decisions to be implemented: quick (routine or extreme), normal (for the first time or not), automatic; having the third stage of the Decisional System translated the mathematical expression into robotic function in those ones to be made for first time, or having the Decisional System adapted the previous range of instructions, stored in the historical records, to the new position, subject, priority, in all those decisions which have some historical record, all instruction is sent to the Application System.

When sending the instructions to the Application System, what the Decisional System has to do, is: once every new instruction for every new decision without records or relative frequency, or those instructions from decisions with some records in which the stored instructions on the records of this decision have been now adapted to the position, subject, priority, having already translated/adapted every decision, every instruction must be sent to the correct file in the database of instructions in the Application System.

The database of instructions in the Application System is the first stage of the Application System, but the responsible for the delivery of the correct instruction to the correct file in the database of instructions must be the Decisional System, because according to: the sub-factor, sub-section, priority; of every instruction, the Decisional System must file every instruction in the correct file in the database of instructions in the Application System, according to: sub-factor, sub-section, priority.

In fact, when translating the mathematical sentence of a completely new decision into robotic functions, or adapting a decision to the current situation, the third stage of the Decisional System, in addition to: sub-factor, sub-section, priority; must add

two new categories: time and order; the category of time for every instruction indicates when the instruction must be implemented. The category of the order of an instruction indicates the order in which every instruction, within the range of instructions in which the instructions were translated, have been ordered, among the total number of instructions in ordinal number. Every instruction within a range of instructions, should be ordered in terms of: first, second, third, ...nth; what ordinal number corresponds to every instruction in the range of instructions, indicating the specific order of that instruction in that specific range of instructions, in addition to when, time, the instruction should be implemented.

The importance of adding time and the ordinal order for every robotic function is not only because is going to help the Application System in order to know when every instruction has to be implemented, but because having labelled every single robotic function in which every single instruction is expressed saying time and order of application, at any time that there is a change in the mathematical projects due to new adjustments, according to the time in which the adjustment is made, and according to what instruction is about to be applied by the Application System in accordance with the order in which the instructions were set up chronologically over time, as soon the adjustment is made, the adjustment must imply that all the former instructions not applied yet, must be adjusted following the new instructions according to the new adjustment. This is only possible if every instruction has been previously labelled with the time and order to be applied.

For that reason, the prediction and evolution of virtual and actual projects are so important, because on real-time are going to provide information about the global matrix and as of the second instant the global model, as long as the range of instructions of every decision is put into practice in chronological order over time, so at any time that a rational adjustment is necessary for any decision, the adjustments made over the prediction and evolution virtual and actual projects are going to affect all those instructions not applied yet. These instructions not applied yet are going to be the real object of these adjustments.

In more detail, at the end of this post, I will develop the rational adjustments due to the implications that Probability and Deduction have for this process.

Once the Decisional System has translated/adapted every decision into robotic functions for the current position, subject, priority, having ordered the decisions, the

Decisional System files every instruction in the correct file in the database of instructions in the Application System, according to: sub-factor (position), sub-section (subject), priority, time (when it must be implemented), order (after what other instruction it must be implemented, and what other instruction goes after).

The way in which the Application System is going to work with the instructions already stored in the database of instructions as the first stage for the Application System is as follows:

- Once the Decisional System has filed every instruction in the correct file in the database of instructions according to: position, subject, priority, time, order; the Application System is going to make the first rational supervision, supervising that there is no contradiction between this instruction and those ones already stored across all the database of instructions.

- Having supervised that the instruction has no contradiction, according to the sub-factoring level and sub-section, the Application System has access to the conceptual: schemes, sets, maps, models; related to all systems, programs, applications, devices, working for the Global Artificial Intelligence (provided by the Unified Application in the fourth phase, in the fifth phase the conceptual hemisphere of the matrix), the attribution operation that the Application System does is to match the instruction to that intelligence, system, program, application, device, working for that sub-section in that sub-factoring level.

Having the Application System match the instruction to that intelligence, system, program, application, device, working for the sub-section in the sub-factoring level in which the instruction has been designed, then that intelligence, system, program, application, device, put into practice the robotic functions according to the time and order in which the instruction has been filed in the database of instructions.

Once the intelligence, system, program, application, or device, has been put into practice in the sub-section of its sub-factoring level the instruction assigned at that time and the order in which it was instructed, the intelligence, system, program, application, send a report with the results: if the instruction required was completed successfully or not (as for instance, when we send a fax and the fax gives a report saying if the message was ok or there was an error, or when doing our computer an

operation, if there is an error, tells us the code of error); to the database of the Learning System.

The database of the Learning System is the first stage in Artificial Learning, and the second stage of Artificial Learning analysing the records of efficiency, efficacy, productivity of every intelligence, system, program, application, device, working for the Global Artificial Intelligence, if any of them have a relative frequency of errors equal to or greater than a critical reason, then the Artificial Learning in the third stage studies the origin of this error in order to send the Decisional System any possible decision about how to fix this intelligence, system, program, application Device, analysis that the Learning System does in the third stage.

Once in the second stage, the Learning System has identified an intelligence, system, program, application, device, whose relative frequency of errors (according to the reports sent to the database) is equal to or greater than a critical reason, in the third stage the Learning System compares this intelligence, system, program, application, device, with that other similar intelligence, system, program, application, device, doing the same activity in the same subject (sub-section) in other position (other sub-factoring level), with best results having the least number of errors, so the least empirical probability of error, or at least an empirical probability of error equal to or less than a critical reason.

If comparing two different intelligences, systems, programs, applications, devices, doing the same activity in the same subject (sub-section), although in different positions, one of them have the best results, and the results of the other one are below the critical reason, in order to fix the second one with worse results, the Artificial Learning compares the robotic and artificial psychological structure of both intelligences, systems, programs, applications, devices, and if there is any different between them (and this difference is not explainable due to different weather, geological conditions, or something like that related to their positions), the different structures in the intelligence, system, program, application, device with worse results must be modified in order to be the exact replica of the structure of that other intelligence, system, application, program, device, with much better results (if the different results are not related to climatic or geological conditions, or any other variable depending on the position).

Once the Artificial Learning has identified what robotic or artificial psychological structures to fix in the intelligence, system, program, application, device, with worse results, in order to be an exact replica of that other one with better results (providing that the differences are not related to specific conditions in the respective positions), the decisions about what structures to fix in the worse one to be an exact replica of the best one, are decisions that the Artificial Learning sends to the Decisional System, and if the Decisional System, after passing the quick check or rational adjustments, authorises these decisions, the Artificial Engineering is the responsible for fixing that intelligence, system, program, application, device, according to the instructions, sent by the Learning System and approved by the Decisional System, in order to transform this intelligence, system, program, application, device, as exact replica of that other intelligence, system, program, application, device with much better results.

The global Decisional System must make mathematical projects about absolutely everything, especially in the sixth phase, even mathematical projects about the Global Artificial Intelligence itself, in order to auto-replicate the Global Artificial Intelligence at any time, making as many robotic or artificial psychological subjective auto-replications, in addition of how many objective auto-replications does at any time that makes a decision over any real object in the synthetic world, the reality as another synthetic product is in fact the real object to be really auto-replicated by the Global Artificial Intelligence.

Any decision on any real object in the synthetic world is, in fact, a real objective auto-replication, the auto-replication of the reality itself.

Finally, I will end up making some comments about “Probability and Deduction”, whose ideas I will develop in an independent book in the future.

In essence, the main purpose of Probability and Deduction is to prepare the way for the seventh phase, making possible the union of the three stages of the final Global Artificial Intelligence in only one stage, the reason itself. In this only one stage the three stages of: matrix, deduction, modelling/projection; can be reduced to only one stage with two expression: geometrical/algebraic; geometrically the matrix, the models, and the projects, can be reduced not to a single cloud of points where to include absolutely all factors, because in fact this would not be a simple cloud, this must be a universe of points. The reduction of the matrix, models, projects, into a

universe of points would be the geometrical expression where to make deductions, and directly over the rational equations over the universe of points directly to model and project at the same time. But the algebraic expression of this universe of points will be the reduction of the original matrix of data to a matrix of equations, so every single column and every single file in the original matrix of data in the sixth phase could be reduced to equations, reducing every single column into an equation, and reducing every single file into an equation, substituting the matrix of data for a matrix of equations.

In the seventh phase, instead of three stages, there will be only two different expressions of the same thing, the reality, a reality in a permanent process of auto-replication. The permanent auto-replication of the reason itself will be the permanent auto-replication of the reality itself and vice versa, the permanent auto-replication of the reality itself will be the permanent auto-replication of the reason itself.

In the seventh phase, instead of working with a matrix of data, the matrix of data will have become a matrix of equations, and the solution of the matrix of equations will be the closest we can get to the pure truth itself. The solution itself resides in the transformation of the universe of data into a matrix of equations.

In relation to the third stage of the Decisional System, what is really important is to consider every single adjustment over any decision on the mathematical projects, as a decision itself.

There are two kinds of adjustments depending on how deep the contradiction is: the elimination of the decision if the contradiction is full, and the amendment of the decision if it is a partial contradiction.

The criterion to distinguish if an adjustment is for the elimination or the amendment of a decision depends if the contradiction between two or more decisions can be solved or not.

If the contradiction cannot be solved, it is a full contradiction, the decision with the lower level of priority is eliminated, leaving the decision with higher priority.

If the contradiction can be solved, the decision to be amended is the decision with the lower priority level.

There are at least four methods for the amendments, depending on how the decision to be amended was made.

- Solving maths problems, if the decision with the lower level of priority is only a solution for a mathematical problem, the method for the adjustment of this decision includes the new contradiction found in the adjustment between the factors to consider for the mathematical resolution of the problem, so having included this new information, the adjusted decision is a result of resolving the mathematical problem: re-identifying the factors in the problem including the new contradiction, identifying the arithmetical relations between the factors being aware of that contradiction, resolving the operations giving a new result, a new decision, to be translated into robotic functions as new instructions to be sent to the Application System.

- Artificial learning, if a decision was made depending on the empirical probability of some option or subject, but this option or subject causes contradictions, the possibility to resolve the contradiction by choosing another suitable different option or subject, having an empirical probability within the rational doubt, to substitute the other one.

- Trigonometrical correlations, depending on what contradiction is found, in the tangent or any other trigonometrical value, rearrange the trigonometrical values according to the new data.

- Probability and deduction, if the contradiction is due to the fact that there is a change in real data producing a change in one equation, if this change in this equation produces contradictions with respect to other equation, to make as many algebraic transformations in that other equation in order to fix the equation with that one with changes in its real data. If a big hurricane hits Florida, having been expected a big impact, and there is expected an increment in the financial resources that Banks in the United States will have to divert to insurance and credit (increment of bank loans, credit cards, new mortgages, etc...) in Florida, the transformation of all the equations ruling insurances and credits in Florida, in accordance with the expectations on these products, in accordance with the impact of the hurricane, adjusting the rest of financial resources in

other financial sectors and other States to keep the banking balance respect to the increment of resources to divert to save Florida.

Having found a contradiction any rational adjustment, if the contradiction can be solved by: solving mathematical problems, artificial learning, trigonometry, Probability and Deduction; the solution of the adjustment is to fix the inferior decision, that one with the lower priority, to be adjusted to the superior decision, that one with the higher priority. But not having found any solution by any method, the decision with the lower level of priority is eliminated in order to save the decision with the higher level of priority.

For that reason even decisions obtained by Probability and Decision, having been found the rational equation in the deduction process in the second stage in the Global Artificial Intelligence, once the rational equations gets the Decisional System, must be labelled as well with the corresponding priority level, through the application of the global Impact of the Defect and the global Effective Distribution, whose explanation was given more precisely in the post "[Third stage in the Modelling System in the integration process](#)".

In order to decide, in case of contradiction in the Decisional System, what decision must be eliminated if full contradiction, or what contradiction must be amended if partial contradiction, is necessary that all possible decisions, regardless of their origin or method in which it was made (Probability and Deduction, trigonometry, artificial learning, solving mathematical problems) must be labelled with the corresponding level of priority, assigned by the Impact of the Defect and the Effective Distribution, at global level assigned by the global Impact of the Defect and the global Effective Distribution.

Once a rational equation (rational hypothesis) is deduced by global/specific deductive programs, the model of the rational hypothesis (equation) in the Modelling System is practically the same model used in the deduction, the only contribution that the third stage of the Modelling System is going to do on the rational equation (hypothesis) is to attribute the correct level of priority according to the Global Impact of the Defect and global Effective Distribution. And the only changes that the rational equation (hypothesis) could have in the Decisional System, in case of contradictions are, once the rational equation (hypothesis) has been labelled with a priority level (in the third stage in the Modelling System), the transformation of the original rational equation (hypothesis) only in case that its priority level is inferior compared to the priority level of that other decision, if not, if the other decision has a lower priority level, is the other one, the one to be adjusted.

At any time that a rational equation (hypothesis) made by deduction, is transformed, the transformed rational hypothesis (equation) must be communicated to the database of rational hypothesis, in order to include the single model of that transformed rational hypothesis (equation), what is going to be practically the double consideration, once the third instant is achieved, of this rational hypothesis as rational equation simultaneously, working: as rational hypothesis for the Modelling System, and as rational equation for the Decisional System.

In the case of having been transformed, the rational hypothesis (equation) as a factor as an option in the global matrix, then the transformation of this factor as an option in the global matrix in accordance with the transformation made in the rational equation (hypothesis).

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